Conclusions: The strategy of increasing pip/tazo use combined with extended infusion did not induce the resistance of *P. aeruginosa* to pip/tazo, even prevented the potentially increasing resistance from the generic drug usage.

PS 2-311

EFFECTS OF IMPLEMENTATION OF AN ONLINE COMPREHENSIVE ANTIMICROBIAL STEWARDSHIP PROGRAM FOR ICU PATIENTS AT A LARGE HOSPITAL IN TAIWAN: LONGITUDINAL STUDY

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Purpose: Antimicrobial stewardship programs may reduce the inappropriate use of antimicrobials, but the long-term effects of such programs in intensive care units (ICUs) have not been adequately examined. Our objective was to evaluate the effects of an online comprehensive antimicrobial stewardship program (OCASP) on the clinical variables of patients in 200-bed medical/surgical ICUs of a single medical center over the course of 11 years.
Methods: We retrospectively analyzed the records of adult patients admitted to ICUs during the 5 years before (n = 27499) and the 6 years after (n = 33834) implementation of an OCASP. Antimicrobial consumption, expenditures, duration of treatment, incidence of healthcare-associated infections (HAIs), prevalence of HAIs caused by antimicrobial resistant strains, and clinical outcomes of patients were analyzed. Segmented regression analyses of interrupted time series were used to assess the significance of changes in antimicrobial use before and after OCASP implementation.
Results: After OCASP implementation, ICU patients were older, had greater disease severity, longer ICU stays, and were more likely to receive antimicrobials, but the antimicrobial expenditures were lower and crude mortality of ICU patients was less. The change in overall antimicrobials use (slope of DDD/1000 patient-days *vs.* time) increased significantly before implementation ($P < 0.001$), but decreased significantly after implementation ($P < 0.01$). Analysis of the individual drug classes of antimicrobials indicated that the administration duration of all classes of antimicrobials treatment were significantly shorter ($P < 0.001$) after implementation except the treatment duration of anti-fungal agents did not differ for the two time periods ($P = 0.05$). The incidences of HAIs were significantly lower ($P < 0.001$) after implementation.
Conclusions: Long-term implementation of an OCASP in our ICUs indicated that this is a sustainable system that reduces antimicrobial consumption and expenditures, but does not compromise healthcare quality.

PS 2-312

THE BENEFITS FOR MULTIPLE MANAGEMENT STRATEGIES OF APPROPRIATE ANTIBIOTIC TREATMENT COMPARED BETWEEN DEFINED DAILY DOSE OF ANTIBIOTIC AND COLONIES OF ANTIMICROBIAL RESISTANCE IN A COMMUNITY HOSPITAL

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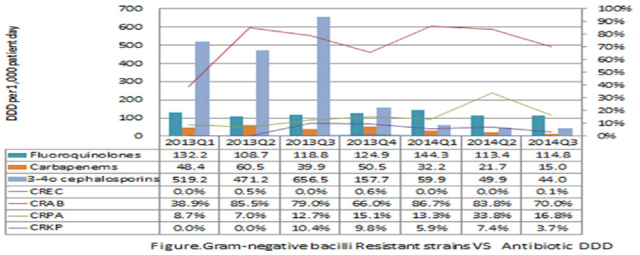
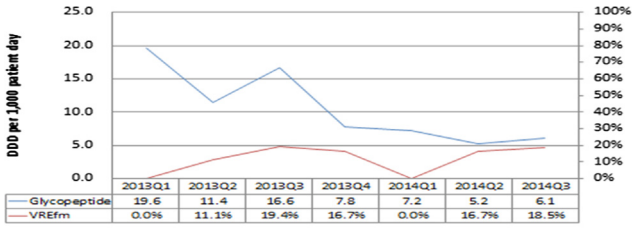
Purpose: Colonies antimicrobial resistance are increasing threat in hospitalized patients over whole world due to inappropriate antimicrobial therapy. The results and benefits of multiple management strategies, after discuss appropriate antibiotic treatment by hospital's antimicrobial committee measures antibiotic that matches the in vitro susceptibility of the pathogen with sensitivity test , that help approving prophylactic antibiotic regimen for infection therefore diminish antimicrobial resistance.
Methods :
Data were retrospectively collected on infectious cases at a community hospital from January 2013 to September 2014,analysis and discussion between defined daily dose of antibiotic and colonies of antimicrobial resistance for appropriate antibiotic treatment by hospital's antimicrobial committee every sessions .Calculated antibiotic daily dose*content/DDD value, all kinds of DID value, with data provided colonies antimicrobial resistance (CR-EC,CR-AB,CR-PA,CR-KP, VREfm) by laboratory department and daily doses of Quinolone, Carbapenem,3-4 generation cephalosporins, Glycopeptide by pharmacy department. Multiple management strategies of appropriate antibiotic treatment was beginning since 2014 with following : 1.set up guidelines for appropriate antimicrobial therapy .2.full education training. 3.monitor all values. 4. Examination of prophylactic antibiotic regimen by infection specialist, all cases analysis and results feedback to doctor each time.5. antimicrobial committee members ground round in wards.
Results :
Good benefits in conclusion, DID of Carbapenem from 49.8 decreased to22.9,CR-AB from 67.4% increased to 80.1%,CR-PA from10.9%increased to 21.3%, CR-EC from0.3% decreased to0.0%,CR-KP from 5.0%increased to5.7%,VREfm from 11.8 decreased to11.7 %, glycopeptides DID from 13.9 to 6.2 %,3—4 generation cephalosporins DID from 451.2 decreased to 51.3, Quinolone DID 121.2 increased to 124.1%,DID all decreased in every sessions.



	2013Q1	2013Q2	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3
Fluoroquinolones	132.2	108.7	118.8	124.9	144.3	113.4	114.8
Carbapenems	48.4	60.5	39.9	50.5	32.2	21.7	15.0
3-4o cephalosporins	519.2	471.2	656.5	157.7	59.9	49.9	44.0
CREC	0.0%	0.5%	0.0%	0.6%	0.0%	0.0%	0.1%
CRAB	38.9%	85.5%	79.0%	66.0%	86.7%	83.8%	70.0%
CRPA	8.7%	7.0%	12.7%	15.1%	13.3%	33.8%	16.8%
CRKP	0.0%	0.0%	10.4%	9.8%	5.9%	7.4%	3.7%

Figure.Gram-negative bacilli Resistant strains VS Antibiotic DDD



	2013Q1	2013Q2	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3
Glycopeptide	19.6	11.4	16.6	7.8	7.2	5.2	6.1
VREfm	0.0%	11.1%	19.4%	16.7%	0.0%	16.7%	18.5%

Figure.Gram-Positive cocci Resistant strains VS GlycopeptideDDD

Conclusions:
The benefits for multiple management strategies of appropriate antibiotic treatment can help approving prophylactic antibiotic regimen for infection therefore diminish antimicrobial resistance.

PS 2-313

AN INCREASING TREND OF CARBAPENEMS RESISTANCE *ACINETOBACTER BAUMANNII* (CRAB) AND CRAB'S CO-RESISTANCE TO CEFTAZIDIME, GENTAMICIN, CEFEPIME, LEVOFLOXACIN AND AMIKACIN IN A TAIWAN REGIONAL HOSPITAL

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Purpose: Carbapenems Resistany *Acinetobacter baumannii* (CRAB) makes treatment difficulty. CRAB's resistance to other antibiotics that caused further problems.
Method: We investigated the proportions of CRAB among *A. baumannii* in a Taiwan regional hospital in 2011-2013. We analyzed the cross resistance of anitmicrobials including ceftazidime (CAZ), gentamicin (GM), cefepime (FEP), levofloxacin (LVX) and amikacin (AN).
Result: An increasing proportions of CRAB *A. baumannii* in 2011-2013 were noticed (36.8%, 50.8%, 61.0%, respectively, $P < 0.0001$). The drug resistance between 2011 — 2013 were CAZ (23.5%, 34.1% ,44.0%), GM(18.4%, 30.1%, 48.3%), FEP(14.0%、31.0%、40.9.0%), LVX(20.6%, 31.5%, 44.0%) and AN(16.8%, 17.0%, 17.2%). An increasing resistance trend was observed for GM, FEP and LVX (all $P < 0.0001$). The correlation of antimicrobial resistance by using correlation coefficient revealed GM-CAZ, LVX-CAZ, LVX-GM, FEP-CAZ, FEP-GM, FEP-LVX, AN- CAZ, AN-GM, AN-LVX, AN-FEP were 0.91 , 0.96 , 0.95 , 0.89 , 0.91 , 0.92 , 0.63 , 0.65 , 0.66 and 0.66, respectively (all $P < 0.0001$).
Conclusion: This study shows the CRAB resistance is increasing annually in a Taiwan regional hospital from 2011-2013. An increasing resistance trend was